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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,807	12/13/2000	Jeremy Lawrence	81862.P178	2439

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EXAMINER

FLEMING, FRITZ M

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,807

Applicant(s)

LAWRENCE

Examiner

Fritz M Fleming

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 11-15, 16-21, 22-31, 32-41 and 42-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Arrow et al. '917 (Arrow).

Per Figure 1, a VPN includes 115-155 and VPN management station 160. To manage the configuration or reconfiguration of VPN unit 115 (i.e. a network device) via 160 per Figure 11, for example, the management traffic is sent from 160 to 115 over the VPN itself.

Therefore, the method of claim 1 comprises the receiving of management traffic over the VPN, wherein the managed network device 115 uses the traffic received over the VPN from station 160. Per claim 2, the managing includes managing network device 115 using secure in-band management due to the use of at least the encryption of column 7. Per claim 3, a one or more management port 414 is linked with the VPN for management thereof. Per claim 4, a management function (i.e. Figures 5 and 6) internal to 115 is linked with the VPN via the schematic of Figure 4. Per claim 5, IP services are carried out via column 7.

Similarly, the claim 11-15 method steps are met by configuring VPN unit 115 to support a VPN via section 160 and linking a management device 160 and its function with the VPN. Per claim 12, the management traffic is carried over the VPN itself. Per claim 13, the network device 115 is managed using the VPN carried management traffic. Per claim 14, the VPN is linked to the management device 160 at, for example, the interface 908 connecting 160 to 100. Per claim 15, IP services are carried out, *supra*.

The network device claims of 16-21 are anticipated via the following interpretation. The VPN unit 115, per columns 6-7, performs data traffic routing, and thus has a routing and forwarding module to forward packets for the network device, and thus configures the network device 115 to support a VPN, with a link that links a management function with the VPN via port 414. Per claim 17, the routing and forwarding module delivers management traffic on the VPN for the network device 115. Per claim 18, for example, a management module in 115 is seen as the configuration data in storage memory 408 when VPN 115 is configured or re-configured by station 160 as set forth by column 10. Per claim 19, an external link at port 414 links the device 115 to the VPN. Per claim 20, an internal link via 602 and 408 links the VPN to the management function 602 and 408 internal to the network device 115 per Figures 4-6. Per claim 21, IP services are addressed *supra*.

The claim 22-26 "means+function" are met by the means for receiving management traffic over the VPN, at for example, 414, and means for managing the network device using the management traffic received over the VPN, at for example, at

Figures 4-6. Means for secure in-band management are the encryption, supra. Means for linking one or more management ports 414 of VPN 115 with the VPN are seen in Figure 4 at the "to 100". Means of Figures 4-6 link the internal management function with the VPN. Means perform IP services, supra. These claims parallel 1-5.

The claim 27-31 "means+function" claims parallel claims 11-15, and thus set forth a means for configuring a network device 115 by station 160 to support a VPN, with means linking the management device 160 and its functionality to the VPN via port 908. The various portion of the VPN and its constituent items set forth the means for carrying the management traffic over the VPN. Means for managing the network device are seen at Figures 4-6 to manage 115 using the management traffic over the VPN. Means link the VPN to the management device 160 at port 908 using an external link. IP services are carried out by the means of the VPN and network itself, supra.

Per claims 32-41, machine-readable medium is present to carry out the above functions via the computer based VPN.

Per claims 42-46, note Figure 1 which shows one or more devices 115 and the like to configure the VPN with one link to link the VPN to the management device 160, the management device 160 facilitating management of the network devices by sending management traffic over the VPN itself via the link thereto. Secure in-band management is attained via the encryption, supra. The network devices are connected via a port to the VPN, supra. Internal management functions link with the VPN, supra. IP services are carried out, supra.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow in view of applicant's admitted prior art (APA).

Arrow sets forth a substantial portion of the claimed subject matter via the anticipation analysis above. The analysis above shows a routing and forwarding module to route and forward data on single input and output links to configure the VPN and to receive management traffic over the VPN with a management module to receive management traffic from the VPN and to manage accordingly.

APA shows a plurality of input and output data links in Figure 4, with a plurality of VPN data input/output links at 422A-C. The purpose of these is to facilitate private communications on the particular router or the same modules on other routers.

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify a VPN unit 115 per the teachings of the APA Figure 4 so that it is possible to facilitate private communications on the particular router or the same modules on other routers. As Arrow has shown the limitations of claims 7-10, the same analysis applies to the combined configuration of multiple input and output data links.


Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Liu and Hoke et al. and Arrow et al. '751 show similar VPN management techniques.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 703-308-1483. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-1483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz M. Fleming
Primary Examiner
Art Unit 2182

fmf